ENTOMOLOGICAL NEWS

AND

PROCEEDINGS OF THE ENTOMOLOGICAL SECTION,

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May Moths in Northern New Hampshire.

BY ANNIE TRUMBULL SLOSSON.

Few entomologists seem to know much of the early spring in Northern New England and its opportunities for collecting. For the last two or three years I have gone to Franconia, N. H., on or before the middle of May. In an ordinary season the snow at that date still lies in the woods, and the mountains often look quite white. But there are plenty of moths.

I have found, on May 15th, *Corycia vestaliata* Guen. and *C. semiclarata* Walk. flying in such numbers over the fields and on the edges of woods that they looked like white flower petals fluttering in the breeze. With these, and as early, fly the pretty species of *Lobophora*, *L. vernata* Pack. and *L. geminata* Pack. About the same date *Lozogramma defluata* Walk. and *L. detersata* Guen. start up before you as you walk in meadow or open

woods to fly rapidly a few feet and drop again suddenly to the ground. *L. lactispargata* Walk, is generally a little later. On 18th or 20th comes the early brood of *Selenia kentaria* G. & R. No one who has not seen these early specimens at this season can know anything of the real beauty of this species. These first comers are larger and infinitely deeper and richer in tint than the later ones, and there is a soft, tender bloom upon the surface of the wings which is as evanescent as lovely, and is quite lost in drying. Before the 20th *Eufidonia notataria* Walk., *Fidonia truncataria* Walk. and *Ematurga faxonii* Minot, are plentiful.

All these are day flyers, of course. The nights at this season are still very cold, and often frosty, but it is marvellous to see how many noctuids are moving about and are attracted to sugar and to light. Two years ago, between May 16th and 20th, *Homoptera edusa* Drury, was in great abundance, flocking at night to our sugar-stations and also to our lanterns on the piazza. We have often taken more than a hundred of this species with its two varieties, *lunata* and *saundersii*, in an evening. With them came also *H. unilineata* Gr., *H. woodsii* Gr., *H. benesignata* Harv., *Zale horrida* Hüb., and the three forms of *Ypsia undularis* Drury. *Tæniocampa incerta* Hüb. is one of these earliest moths and very abundant. By the end of the month some of the *Bombycidæ* make their appearance; the Spilosomas—*virginica* and *prima*—*Halisidota maculata* Harr., *H. tessellata* A. and S., *P. isabella* A. and S., *L. acræa* Drury, *Arctia virguncula* Kirby; *Notodonta stragula* Gr.; *N. basistrieus* Walk. *Lophopteryx elegans* Strecker; *Nerice bidentata* Walk. and many others. And you must remember that this is not in the May of Pennsylvania, or even that of southern New England, but in the tardy cold spring of the northern hill country. There the snow often lies upon the ground until June; the streams are icy cold, and all vegetation exceedingly backward. Upon what do these early subalpine moths feed? There are almost no blossoms at the season of which I speak. From under the snow the *epigæa* lifts a few pink buds, and in a favorable, sunny May, *viola rotundifolia*, *v. selkirkii* and a few—a very few—other hardy little plants open tiny blossoms.

I must not forget to say that it was in the last week of May, in a very backward season, while snow lay in heaps and drifts, in sheltered, shady spots, that I took at light my fine specimen of *Phragmatobia assimilans* Walk. This beautiful insect known only

for many years by the worm and damaged types in the British Museum owes, doubtless, its rediscovery by me to my early visit in that backward season to the New Hampshire hills.

Random Notes on Lepidoptera.

BY HENRY SKINNER, M. D.

Determination of Sex of the Cocoons of Cecropia.—One winter some time ago I collected a large number of *Platysamia cecropia* cocoons and noticed quite a difference in their superficial appearance, and I determined to see, if I could, what it meant. I had suspected from some previous observations that the two kinds represented the different sexes. I divided the cocoons accordingly, putting them in separate boxes, and found, subsequently, that the cocoons in one box produced males and the other females. I separated them by the following characters: the male cocoon is much more compact, lighter in color, and not nearly so baggy as the female and much longer in proportion to its width. A typical male cocoon is three and three-quarters inches in length and one and one-eighth in width, while the female cocoon is but three and one-eighth inches in length by two inches in width. The male cocoons are nearly always found high on the stalks (elder) and the females close to the ground hidden by long grass and dead leaves or other matted material where the elder stalk leaves the ground. The difference in the construction of the two cocoons is very striking, the wrinkled, baggy character of the female ones is noticed at once. There may be some exception, but I think by taking the sum of the characters the sexes may be picked out at once without any difficulty, especially in the cocoons found on elder bushes. The above facts are also true of the other species in the genus *Platysamia*, but in a lesser degree. I have separated the sexes of *ceanothi* in the same way.

A UNIQUE COLLECTING-FIELD.

The Eastern Penitentiary is situated at 22d and Fairmount Avenue, Philadelphia, in the heart of the city, and is surrounded by a stone wall about 42 feet high. The corridors run from a common centre like the spokes of a wheel, thus leaving some ground between them. Most of the cells have a small yard at-

tached in which the prisoner is allowed a few hours each day for exercise. Some time ago while on a professional visit to some of the inmates I was mortified to find a lepidopterist, although interested in his captures, which were all made in the yard attached to his cell. The cell yard was enclosed by stone walls 14 by 17 feet and 11½ in height. In this small space he had caught during the past summer eighteen species, as follows: *Papilio asterias, turnus, glaucus, ajax; Pieris rapæ; Colias philodice; Danais archippus; Grapta interrogationis; Vanessa antiopa, atalanta; Ancyloxypha numitor; Eudamus tityrus; Philampelus satellitia; Sphinx celeus; Hemaris thisbe; Catocala obscura, ilia; Cicada* sp.

P. ajax is a great rarity here. I have never seen but one in the city limits, and *Catocala obscura* is also rare. Most of the species were represented by a number of specimens.

AN ERROR CORRECTED.

Mr. Wm. Beutenmueller in his article on the preparatory stages of *Callosamia angulifera*, Ent. Amer. Vol. V, No. 11, p. 200, says "the cocoon can only be separated from that of *Promethia* by its larger size." The differences in the cocoons and the habits of the larvæ of the two species in my mind are the most striking proofs of the distinctness of the species. The full grown *Promethia* caterpillar takes great care to securely fasten its cocoon to the twigs of the tree and hangs by a thread of tightly-woven silk, which has been spun over the stem of a leaf and the dried leaf itself from the outer covering of the cocoon. The *angulifera* caterpillar either spins its cocoon in the leaf and when the leaf drops in the fall the cocoon falls to the ground in it, or crawls down the trunk of the tree and spins its cocoon in the grass, or fastens it to a dead stick under the tree. The *angulifera* cocoon is oblong, being one inch and a half in length by five-eights of an inch in width, and never has the silken prolongation as in *Promethia* (see "Psyche," Vol. V, p. 261), and is not obscured so much by the curled leaves, and has a more marked appearance.

Siphonophora or Nectarophora?

BY CLARENCE M. WEED.

The fact that the aphidid genus *Siphonophora* has recently been replaced by *Nectarophora*, does not seem to have received as

much attention from entomologists as it deserves, and ENTOMOLOGICAL NEWS may perhaps be utilized to present a brief statement of the case. The change was made by Prof. O. W. Oestlund in his "Synopsis of the APHIDIDÆ of Minnesota (Bulletin No. 4 of the Geological and Natural History Survey of Minnesota, p. 78)," where in using *Nectarophora* he says:

"It is with some reluctance that I propose to replace a name that has already become so familiar and extensively used as that of *Siphonophora*. But *Siphonophora* as a generic term was already appropriated for the *Myriapoda* before Koch made use of it in the APHIDIDÆ; and it is also used to denote an order of the oceanic HYDROZOA, and should, therefore, according to practice, be replaced by one not already occupied."

Prof. Forbes informs me that Marschall's "Nomenclator" gives the date of the use of *Siphonophora* by Brandt for a genus of MYRIAPODA at 1886, and that of Koch for HEMIPTERA at 1855.

It seems to me that in questions of nomenclature entomologists at present cannot do better than follow the code of the American Ornithologist's Union, in accordance with canon xxxiii, of which the use of *Nectarophora* would be justified. This canon reads as follows:

"A generic name is to be changed which has been previously used for some other genus in the same kingdom; a specific or subspecific name is to be changed when it has been applied to some other species of the same genus, or used previously in combination with the same generic term."

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Notes on Smerinthus Astylus Drury.

BY FRANK M. JONES.

As but little is known of the life-history of this insect, the following notes may be of interest; unfortunately, I could not obtain a full description of the larva through all its changes:

June 16, 1889.—Found ♂ and ♀ on a twig of High-bush Huckleberry. Here and there on all the Huckleberry bushes hung a few dry leaves; the leaves, when dead, turn cinnamon-brown, and the two moths, as they sat motionless on the twig, so closely resembled one of these clusters of dry leaves, both in color and outline, that I did not recognize them as living insects for some seconds after seeing them.

June 16 to 19.—♀ laid 151 smooth, glossy, pale greenish yellow eggs, somewhat flattened, 2 mm. greatest diameter.

June 23.—Some of the eggs changed to dirty white, and the young larvæ could be seen within.

June 24.—Eggs commenced to hatch; young larva pale greenish white, 6 to 7 mm. in length; head and thoracic segments large; caudal horn 1.5 mm. in length, reddish brown, darker at base and tip; two spines at tip, making it appear pronged; horn usually straight, or nearly so, but in some cases much curved; in this moult it points backward.

July 28.—Larva full grown; length 38 mm.; green, with yellow granulations; seven yellow, oblique, lateral stripes, the last reaching base of caudal horn; an indistinct, yellow, longitudinal, lateral line to fifth segment, and continued faintly; a variable number of red dorsal spots or blotches, two on a segment; some have but two small red spots on the third segment, and on others red is the predominating color of the dorsal region; caudal horn straight, pale green; two thorns at tip; points forward; several days before pupating the green of the dorsal region fades to a dull yellow.

August 11.—First larva pupated; although provided with a plentiful supply of light, moist earth, none of the larvæ attempted to enter the ground, but pupated upon the bare soil. If this is their habit in nature, it may in part account for the rarity of this insect, but I have noticed the same thing with other and commoner species when confined in breeding-cages, and its rarity is probably due to some other cause.

Notes on a few Virginian Dragonflies.

BY PHILIP P. CALVERT.

Some months ago Mr. Wm. D. Richardson, of Fredericksburg, Va., sent to me, for identification, a few dragonflies which he had taken in Spottsylvania County in that State. These specimens may interest some readers as adding new data for geographical distribution. Excepting *Æ. heros*, none of these species have been recorded from Virginia before, although *P. trimaculata* was known to inhabit the United States everywhere east of the Rocky Mountains. The notes which Mr. Richardson sent with the specimens are enclosed in quotation marks.

1. *Lestes forcipata* Ramb. (Selys, 1862) ♂ "July 3, 1889, near a pond."

This species is the *hamata* of Dr. Hagen's Synopsis of 1861.

2. *Anomalagrion hastatum* Say, ♀ "July 12, 1889, near a pond."

3. *Enallagma aspersum* Hag., ♂ "July 12, 1889, near a pond."

4. *Æschna heros* Fabr., ♂ "June, 1889; caught while flying near a stable, about a thousand feet from a pond, late in the evening."

5. *Celithemis elisa* Hag., ♂ "July 3, 1889, near a pond."

6. *Plathemis trimaculata* De Geer, ♂ "June 18, 1889, near the borders of a small pond about one-quarter of a mile from Fredericksburg."

7. *Libellula quadrupla* Say, ♀ "1888, border of a small pond near Frederickburg."

The most southern locality known to me for this species is Greenville, S. C., from which I possess a female taken by my friend, Mr. Lawrence O. Patterson.

8. *Diplax vicina* Hag., ♀ "June 18, 1888, flying over a pond."

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NORTH AMERICAN HESPERIDÆ.

BY EUGENE M. AARON.

No. 1.—ERYCIDES URANIA and EUDAMUS HESUS.

It is the purpose, in this series of short papers, to give descriptions of new or little-known species of North American HESPERIDÆ, with notes that will be calculated to aid students in the study of this neglected Family. There are a few species of HESPERIDÆ which have never been described, the identification of which depend on illustrations only to be found in rare and costly works. Others are inadequately described or, in the opinion of the writer, confounded with older species, and still others are as yet undescribed. Where it seems to be desirable to elucidate the text, plain drawings will be furnished.

Erycides Urania, West. [Plate I, fig. 1.]*

West.-Doub.-Hew., Gen. Di. Lep., p. 510, No. 7, pl. 79, fig. 1 (1852).

Though figured, in 1852, in the superb work cited above, this striking species has never been described in the publications of its

* Plate I will appear in a future number of NEWS.

native land nor abroad. As the "Genera of Diurnal Lepidoptera" is an extremely rare work—it is doubtful if more than fifteen copies are to be found in the United States—I have thought it well to describe and figure it at this time, so that hereafter it may be easier for the American student of the HESPERIDÆ to identify the species as it turns up in collections.

The only textual reference to this species in the "Gen. Di. Lep." is in a list of the species of the genus; the student is left to the very accurate figure on plate 79 for the determination, and there, very unwisely as it seems, only the upper side is figured.

The description which follows is made from the figure by Mr. Hewitson, and from a fair series of specimens from Texas and Mexico:

Expanse 2 to 2⅜ inches. Ground color above black on both wings; banded and spotted with bright green or blue. On the primaries this banding in most examples is caused by the fact that nearly the whole surface is covered with a dense coat of scales of bright green, which, being separated by the black bordered nervures, take on the form of longitudinal bands; in a few specimens, however, the apical area is but slightly sprinkled with green and the whole outer half of the wing appears black or nearly so. A group of translucent sub-apical spots consist of three constricted points along the costal margin, one larger below the outer of the three, and a much larger quadrate spot centrally below the four. Two translucent bands follow these spots internally, the first bifid, short, hardly more than an elongated spot, the inner one crossing the median area much longer and made trifid by two nervures. The color of the markings on the secondaries is much brighter, and towards the anal angle of a deep azure-blue tint in some examples. From the base three streaks diverge towards and stop abruptly on the median area, the upper of these is shorter than the others to make room for the bifurcate series of spots on the outer area of the wing. These spots—four in the inner limb and seven in the outer are placed in the form of a written letter *y*. On some examples there is a faint indication of another streak, longer than the three others running parallel to the abdominal margin.

Beneath, color and markings a reproduction of the upper surface, save that while the black is not so dense on the primaries, it is deeper and more velvety on the secondaries. The green atoms on the primaries are fewer; on the secondaries they are brighter, and the bands run all the way to the costal edge.

Thorax above black, with tufts of green hairs, beneath marked to match the secondaries. Abdomen black, with green hairs and annulations of the same color. Head and palpi above green spotted, white beneath. Antennæ black, dark cinereous at tip. Emarginations, above and below, notched, white.

Habitat.—Mexican boundary of Texas; Mexico; Central Am.

Eudamus Hesus, West. [Plate I, fig. 2.]

Goniloba Hesus, West.-Doub.-Hew. Gen. Di. Lep. p. 573, No. 40, pl. 78, fig. 5 (1852).

As in *Erycides Urania*, this species has never been described, but has always been accepted on the strength of the excellent figure of the upper surface, the lower surface not having been represented. The description which follows is made up from this figure, and a small suite of specimens; the species is rather rare in collections.

Expanse 2¼ to 2⅜ inches. Primaries much produced apically. Ground color rich rufous brown, shaded with deep umber on outer and abdominal margins, and approaching black-brown on costal margin of secondaries. Primaries with three sub-apical honey-yellow spots, the upper very minute; an irregular discal patch of the same color translucent, resembling a three-leaf clover in shape and composed of three unequal outwardly-notched spots, extends from the costal area well towards the posterior angle. This patch is faintly margined by black; at the juncture of the three spots there is a triangular spot of the ground color. On the costal margin a deepening of the scales and a deep incision running therein for about one-third the length of the wing presents the appearance of an aborted costal fold; sometimes this area is of a lavender-gray color. On lower margin towards base there are two small black spots and two smaller and less distinct just below the outer angle of the discal patch; these seem to be a disconnected continuation of a band of two or three still fainter on apical area. Secondaries have a small round black spot on disc and a row of five or six of the same color, and of varying size, parallel to the outer margin.

Beneath, the ground color is much duller in tone and more clouded. Honey-yellow spots, of the primaries above, reproduced; black points wanting. Secondaries without the broad area of black-brown on costal margin; the spots of the upper side are replaced with spots of a lighter color than the ground

encircled with brown fuscous. The row of spots parallel to the outer margin is made to continue in its sub-marginal course by the addition of two spots placed parallel to the costal margin. Beneath the discal spot and towards the abdominal margin there is another somewhat smaller.

Body and thorax above and below concolorous with the wings; head above the same, below much brighter. Antennæ annulated with black and the general color, brighter at base of tip, then black, and finally ending in a long tapering tip of the general color.

Habitat.—Mexican boundary of Texas; Mexico; Central Am.; Brazil (?). The locality was unknown when the insect was figured by Westwood.

Notes and News.

ENTOMOLOGICAL GLEANINGS FROM ALL QUARTERS OF THE GLOBE.

[The Conductors of ENTOMOLOGICAL NEWS solicit, and will thankfully receive items of news, likely to interest its readers, from any source. The author's name will be given in each case for the information of cataloguers and bibliographers.]

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ABCANTHIA PAPISTRILLA IN NESTS OF THE BARN SWALLOW.—While workmen were nailing some brackets beneath the eaves of the college barn in the latter part of last August preparatory to putting up new eave-troughs, they complained of receiving a shower of bed-bugs whenever they pounded on the barn. The fact was reported to me and I immediately went, bottle in hand, to get a supply of the bugs.

A large flock of swallows had lived about the barn all summer and reared their young and had recently deserted the place. The eaves were completely lined with their mud nests between the ends of the rafters. Upon examining these nests I found them to be literally alive with crawling vermin somewhat resembling bed-bugs, but much smaller, more hairy, and having a grayish pilose appearance instead of the naked brick-red appearance of the article that I had always seen. The outside of the nests were in many places gray in color from the accumulation of their white egg-shells. The largest of the bugs found in the nests measured but 9-64 of an inch in length, while full grown specimens of *A. lectularia* in my collection measure fully ¼ of an inch. I am indebted to Mr. Ashmead, of the Division of Entomology at Washington, for the identification of the species. Mr. Ashmead tells me that he does not think that this species has ever before been reported in this country. It is a common species in

Europe on the swallow and the bat. Is it not very possible that in most cases, and perhaps in all cases, where bed-bugs have been reported in swallow's nests in this country that this was the species present, and not *A. lectularia?*

C. P. GILLETTE.

West Cliff, Custer Co., Col., Dec. 16, 1889.

The Editor ENTOMOLOGICAL NEWS,

DEAR SIR:—I received your preliminary circular, or prospectus, to-day, and am glad to hear of the new journal. Conducted on the lines set forth, and by the editor and committee announced, it cannot fail to be highly useful. It will bring entomologists in closer touch and to more harmonious feeling than has yet been seen on this side of the water. * * *

It has occurred to me that ENTOMOLOGICAL NEWS might fulfil a very useful function by collecting facts and opinions regarding the various questions which have been or are under debate in entomological circles. Thus, you might announce in successive numbers of the journal that facts and opinions were required concerning such questions as:

1. Does moisture cause melanism, and if so, why?
2. Ought varieties to be named, and if so, to what extent?
3. Should the term "form" be used to indicate slight varieties?
4. In symmetrical insects does one side tend to vary more than the other in an average of numerous examples?

And so on.

Then a "question editor" might be appointed (or a committee) to sift and arrange the resulting correspondence, and finally draw up a report showing the trend of opinion and the weightier facts on either side. Don't you think that would be useful?

You might also have a "Variation Committee," to receive reports of all varieties, and assort and arrange them when convenient for publication. In this way facts from all hands would be correlated and their significance understood.

Hitherto there has been too much exclusiveness. Those who were not specialists, or great students, have thought they could do nothing, whereas, properly guided, they can do *everything!* But they must not be slighted or looked down upon because they are "beginners."

Yours very truly,

THEO. D. A. COCKERELL.

[The projectors of ENTOMOLOGICAL NEWS have had the plans for its management and publication under advisement for some time past; in fact ever since the untimely demise of "Papilio," in 1885, it has been more or less in their minds. Though for some time assured that such a journal as they hope to make it was needed they have continued to feel doubtful of its reception by the entomological public until answers began to pour in from those who received the preliminary circular alluded to above. Letters such as this from one of the most active biologists interested in our science have reached us in sufficient numbers to assure us that American and

Foreign Entomologists are much interested in our success. From these present humble beginnings we hope to move on towards even higher ideals until, with the aid of our correspondents, we reach such useful channels as Mr. Cockerell has outlined.—E. M. AARON.]

WHISTLING TREES.—A species of *acacia*, which grows very abundantly in the Soudan, is also called the "whistling tree" by the natives. Its shoots are frequently, by the agency of the larvæ of insects, distorted in shape and swollen into a globular bladder, from one to two inches in diameter. After the insect has emerged from a circular hole in the side of this swelling, the opening, played upon by the wind, becomes a musical instrument, equal in sound to a sweet-toned flute.—*Exchange.*

A GRASSHOPPER STORY.—A reformed car driver who worked for the Street Car Company of Mobile, Ala., in the days when paper currency was all the go, says that the company introduced the patent boxes which for a time headed off the boys effectually in their "knocking down" fares. But the victory of capital over labor was short-lived, for the drivers supplied themselves with large grasshoppers which they tied by the wings with a string and shoved down into the box, and when Mr. Grasshopper grabbed onto a dime they jerked him back out of the box. This was kept up for some time with great success, until one day the string broke and left the bird in the box, which gave the snap away.—*Exchange.*

JEWELS THAT ARE ALIVE.—The firefly of the South—the *cucujo*, an inch-long beetle—is occasionally brought to this country as a curiosity, and if fed on sugar-cane and kept in a moist atmosphere it can be preserved in health for several weeks. The people of the Caribbean Islands use these beetles for ornament, confined in folds of gauze, where the beautiful green light which they emit—their red light flashes only in flying—is more varied and splendid than any emerald that ever shone in a king's coronet; a number of them together under a glass make sufficient illumination for dressing or reading without producing any heat.—*Harper's Bazar.*

THE MEXICAN WASP.—The Mexican Wasp is built entirely for business. He is over two inches long when he is of age, and is about the color of a bay horse. His plunger is a full inch long and as fine as a spider's web. Unlike the stinger of a common bee, the stinger of the Mexican Wasp is non-forfeitable. He doesn't give up after one lunge, but is always ready for an all-day job if necessary. The mission of the Mexican Wasp seems to be to hunt up people to run his stinger into. The natives say that he will go ten miles out of his way to get a whack at a person. The natives seem to get fat on snake bites, centipede bites and scorpion stings, but if they discover one of these wasps in their neighborhood they hunt for cover without delay.—*Great Divide.*

Entomological Literature.

PROCEEDING OF THE ASIATIC SOCIETY OF BENGAL, January–June, 1889 ["Issued May–August, 1889;" received in Philadelphia, Dec. 21, 1889.] Contains the following: "Three new Homoptera" (Indian species) by M. L. Lethierry.—E. M. A.

SCIENCE.—Dec. 20, 1889, contains a very full and appreciative review of the work done and recently reported upon by Prof. W. A. Henry, of the Wisconsin Experiment Station, acting under the direction of Secretary of Agriculture Rusk, on certain matters connected with agricultural and entomological research on the Pacific coast.—E. M. A.

ANNALS OF THE N. Y. ACADEMY OF SCIENCE, Vol. IV, No. 12 ["Nov. 1889;" received Dec. 21, 1889.]—Contains a new genus of Termitophilous STAPHYLINIDÆ (continued)" by T. L. Casey. *T. insolens*, from Panama, is described as new.—E. M. A.

THE ENTOMOLOGIST.—December, 1889, contains "*Pararge megæra*," by Sydney Webb. The author figures and describes an aberrant form captured in Kent. "Notes on Parasites of *Atherix ibis* Fabr." by W. H. Ashmead, T. R. Billups and F. W. Frohaws. Hymenopterous insects of the genera *Antæon* and *Trichogramma* are commented on. "Notes from the Northwest Counties," by J, Arkle; collection Notes. "Entomology of Iceland," by Rev. F. A. Walker. Notes on a list of Insects taken there this year. "Contributions towards a list of the varieties of *Noctuæ* occurring in the British Islands," by J. W. Tutt.—Under "Entomological Notes, Captures, etc.," there are the usual notes on localities, odd aberations, varieties, etc. In addition, notes on "Parasites on Moths," by E. Bostock. "New views on the suborder HOMOPTERA," by W. L. Distant," and "Fungus parasitic on Insects," by George J. Grapes, are interesting. The usual reports of the Proceedings of the English Entomological Societies, and reviews of Distant's "Monograph of Oriental Cicadidæ" and Porritt's "Notes on an extraordinary race of *Arctia mendica* Linn." are followed by six pages of index, etc.—E. M. A.

FIFTH REPORT OF THE INJURIOUS AND OTHER INSECTS OF THE STATE OF NEW YORK, by J. A. Lintner, Ph. D., State Entomologist, Albany, 1889. In a work of 203 well-printed pages, the author treats of "Remedies and Preventions of Insect Attack," "Injurious HYMENOPTERA," "Injurious LEPIDOPTERA," "Injurious DIPTERA," Injurious COLEOPTERA," "Injurious HEMIPTERA," "Insect Attacks and Miscellaneous Observations," "ACARINA and MYRIOPODA," and adds a "List of publications of the Entomologist" (1888) 52 articles being enumerated, and 69 articles added in a special bibliography for 1884 and 1885. Indices, general and botanical, occupying 21 pages are added; 50 figures in the text serve to illustrate as many insect pests or friends. As is usual with

the works of this author, this report is an excellent hand-book of the year's research in Economic Entomology in America. It is invaluable to all entomologists, whether they be interested in economic or classificatory work.—E. M. A.

CANADIAN ENTOMOLOGIST—January, 1890. This first number of Vol. XXII contains "*Balaninus*—Its food habits," by John Hamilton, M. D., with five illustrations of *Balaninus nucum*. The continuation of Prof. J. B. Smith's "Preliminary Catalogue of the *Arctiidæ* of Temperate North America, with Notes" [the genus *Arctia*.] "Note on the Larval Ornamentation of the North American *Sphingidæ*," by A. R. Grote. "Descriptions of Lepidopterous Larvæ," (*Mamestra lorea*, *Phycis rubifasciella*, *Salebria contatella* and *S. celtella*). "Note on the genus Crocota and Prof. J. B. Smith," by A. R. Grote; a controversial article. "Notes" and "Correspondence" contain brief notes on Collecting by F. B. Caulfield. "The Cotton Worm" around London, Ontario, by E. Baynes Reed, and "Chrysalids (*Pyrameis cardui*) devoured by Caterpillars (*Spilosoma isabella*)," by S. W. Denton.—E. M. A.

THE ENTOMOLOGIST'S MONTHLY MAGAZINE—January, 1890, contains "*Micropteryx* larvæ," by John H. Wood. "*Coleoptera* at Cobhane Park, Kent," by J. J. Walker. "Descriptions of two new genera (*Stethidea* and *Trichidea*) and of some uncharacterized species of *Galerucinæ*," by Joseph S. Baly. The species are from the Indian fauna. "Notes on the *Lepidoptera* of Mooltan," by N. Manders. "*Icerya purchasi* and its insect enemies in New Zealand," by W. M. Maskell. The briefer notes in this issue are on "*Scoparia atomalis* and *Scoparia augustea*," by Eustace R. Bankes. "*Opostega salaciella*," by the same author. "Habits of the Honey Moth" [*Galleria cereana*,] by C. G. Barrett, and "*Anarta myrtilli* at flowers," and "Identity of *Phycis adornatella* and *P. subornatella*," by the same author. "Habits of the larva of *Eudorea dubitalis*," by W. Machin. "The Life-history of *Simæthis combinatana*," and "On the flight of *Atta antarctica*," by G. V. Hudson. "*Psocidæ* and Mistletoe," by R. McLachlan, who says: "much and interesting could be written on the denizens of an old tuft of mistletoe;" "*Limnophilas hirsutus* at sugar," by Geo. R. Porritt; and the usual notes on localities and captures in the British Isles.

A review of "Indian Museum Notes, Vol. I, No. 1," which is "planned much on the same lines as 'Insect Life,' and like it cannot fail to have a beneficial effect," is published and Obituary Notices of Dr. Franz Löw, at Vienna, aged 61; J. B. Géhin, at Remiremont, aged 73; and Prof. Wm. Ramsay McNab, M. D., at Dublin, aged 45, are given. The usual accounts of Society Meetings end the number.—E. M. A.

LE NATURALISTE CANADIEN December, 1889.—With this issue comes (paged 285–292) a separatum continuing the work on the *Jassides* (*Jassus* to *Pediopsis*). The rest of this number is of general interest, and not especially addressed to entomologists.—E. M. A.

THE ENTOMOLOGISCHE ZEITSCHRIFT, Dresden, Band 2, 1889, contains a very interesting and valuable paper to lepidopterists entitled: "Lepidopteren der Insel Palawan," by Dr. O. Staudinger. It covers one hundred and seventy-seven pages enumerating two hundred and eighty-three species collected by Dr. Platen. At the end of the paper are two very useful lists of species, one being systematic and the other alphabetical. About sixty new species are described, and some of them illustrated, there being two plates, containing thirty figures, which are photographic reproductions. Copious notes are given with each species listed. Among the interesting new forms were two species of *Ornithoptera*. Palawan is one of the Phillipines, and is two hundred and sixty miles long by thirty wide, the interior being mountainous, and the west flat. The products of the island are cowries, gold, ebony and other fine woods. Also two papers by C. Ribbe; one on two new diurnals from Africa, and the other on new butterflies from Banggassa, a small isle in the Celebes, illustrated by two plates, seven figures. A paper by H. Ribbe on some aberations in the collection of Gustav Borneman, is also of interest to lepidopterists.

H. SKINNER.

Doings of Societies.

COLORADO BIOLOGICAL ASSOCIATION, West Cliff, Oct. 19, 1889.—Mr. Cockerell exhibited and made remarks on a number of Hymenoptera, including *Vipio coloradensis* Ashm. ♀, collected in the Wet Mountain Valley, Col. This was only the second example of the species known.

December 14th Mr. S. H. Scudder was announced as a corresponding member. Letters from Mr. Ashmead, containing identifications of Hymenoptera and Hemiptera, and from Rev. G. D. Hulst, containing identifications of Lepidoptera, were laid before the meeting.

All these insects had been collected in Wet Mountain Valley, Custer County, Col. The Hymenoptera included *Glyphe flavipes* Ashm., *Homalotylus bifasciatus* Ashm., etc. The Lepidoptera included two new species: *Ragonotia saganella* Hulst and *Caripeta niveostriata* Hulst, and a species, *Altoona ardiferella* Hulst, of which only one specimen was previously known.

T. D. A. COCKERELL, Sec.

THE ENTOMOLOGICAL SOCIETY OF LONDON, Dec. 14, 1889.—Mr. W. L. Distant exhibited on behalf of Mr. L. de Nicéville, a branch of a walnut tree on which was a mass of eggs laid by a new Lycænid butterfly, which Mr. de Nicéville had referred to a new genus and described as *Chætoprocta odata*. It was said to occur only at elevations above 5000 feet in N. W. India. Dr. Sharp exhibited eggs from a South American bug, *Piezosternum subulatum*, which, though taken from a completely rotten imago, were in a perfect state of preservation. He also exhibited a speci-

men of *Pœcilochroma Lewisii*, a Pentatomid bug from Japan, which, when dampened with water, turned instantly from a dull green to a metallic copper color. Mr. J. H. Leech exhibited a large number of *Lepidoptera* from Mr. Pratt, of Ichang, China, which contained fifty-six new butterflies and forty new moths. Mr. Elwes observed only two genera in this collection not known to be found at Sikkim. He called attention to the similarity of the species from India, China and Java. Mr. McLachlan remarked on having lately received a dragonfly from Simla previously only recorded from Pekin; and Mr. Distant stated that he had lately received a species of *Cicada* from Hong Kong hitherto supposed to be confined to Java. Mr. W. H. B. Fletcher exhibited a preserved specimen and drawings of a variety of the larva of *Sphinx ligustri*. Mr. F. D. Godman read a letter from Mr. Herbert Smith, containing an account of the *Hymenoptera*, *Diptera*, *Hemiptera* and *Coleoptera* recently collected in St. Vincent, where he was employed under the direction of a committee of the Royal Society appointed to investigate the natural history of the West Indies [it is understood that a work on the lines of the superb "Biologia Centrali-Americana" will in time be the product of this survey.]

Mr. Elwes read a letter from Mr. Doherty descriptive of collecting at light and sugar in the Naga Hills. Mr. Doherty expressed the opinion that light used in out-of-the-way places repels rather than attracts; the same applied to sugar, as insects required to be accustomed to these decoys, Col. Swinhoe said the attractive power of light depended on its intensity and height above the ground. He had collected over three hundred specimens of *Sphingidæ* at electric light in Bombay in one night. Mr. J. J. Walker had found electric lights very attractive in Panama. Mr. F. Merrifield read a paper entitled, "Systematic Temperature Experiments on some *Lepidoptera* in all their stages," and exhibited a number of specimens in illustration. Darkness of color and markings in *Ennomos autumnaria* resulted from the subjection of the pupæ to a very low temperature. The same had occurred in *Selenia illustraria*, where the markings had also been altered in a very striking manner. Lord Walsingham observed that exposure to cold in the pupa state appeared to produce a darker coloring in the imago, and that forcing in that stage had an opposite effect; that insects subjected to glacial conditions probably derived some advantage from the development of dark or suffused coloring, and that this advantage was, in all probability, the more rapid absorption of heat. He believed an hereditary tendency in this direction was established under glacial conditions, and that this would account for the prevalence of melanic forms in northern latitudes and at high elevations.

H. Goss and W. W. Fowler, Sec's.

Entomological News for January was mailed Jan. 15, 1890.